

### **ABSTRACT OF THE DISCLOSURE**

A mixed-mode process introduces a hard mask layer. Due to the introduced hard mask layer made of non-resist material formed over devices, performance of a formed capacitor is protected from effects of an implantation process such as source/drain implantation. A self-aligned silicide (salicide) process for a MOSFET transistor can also be performed. Thus, production efficiency and performance of an IC product formed by the mixed-mode process can be improved. Moreover, the number of required fabrication steps is reduced and cost savings can be realized.